

CLAIMS

What is claimed is:

1. An electronic monitoring system for monitoring a client, comprising:
 - a transmitter worn by the client that transmits status data regarding status of the transmitter at one over more predetermined frequencies;
 - a client tracking unit carried by the client that comprises a wireless voice and
 - 5 data communication device, a receiver that receives the status data transmitted by the transmitter, a GPS (Global Positioning System) receiver that receives time-coded position data derived from satellites of the Global Positioning System that indicate the geolocation of the client tracking unit, and a memory that stores the time-coded position data;
 - 10 a monitoring center for receiving and storing the status data and GPS data derived from the client tracking unit in a database, and a web server communicating with the database;
 - a wireless portable monitoring device carried by a monitoring individual tasked with monitoring the client that comprises a wireless voice and data communication
 - 15 device, and a web browser that communicates with the database by way of the web server to selectively access and data regarding the client to remotely monitor the client; and
 - a wireless communication link for communicating between the portable monitoring device, the client tracking unit, and the monitoring center.
2. The system recited in Claim 1 further comprising:
 - a monitoring unit for use by the client that comprises a receiver for receiving the data transmitted by the transmitter when it is in proximity thereof, and communication apparatus for downloading the data to the monitoring center.
3. The system recited in Claim 2 further comprising:
 - a dock in communication with the monitoring unit that docks the client tracking unit and wherein the monitoring unit transmits the time-coded position information stored in the client tracking unit to the monitoring center by way of land communication
 - 5 lines when the client tracking unit is docked.

4. The system recited in Claim 3 wherein the receiver of the client tracking unit has a first reception range relative to the transmitter, the dock comprises means for turning off the receiver of the client tracking unit when it is docked, and wherein the receiver of the monitoring unit has a second, extended reception range relative to the transmitter.

5. The system recited in Claim 2 further comprising:
a dock in communication with the monitoring unit that docks the client tracking unit and wherein the monitoring unit wirelessly transmits the time-coded position data stored in the client tracking unit to the monitoring center using SMS messages by way of the wireless communication link to the monitoring center when it is docked with the monitoring unit and when the landline communication link therebetween is inoperative.

6. The system recited in Claim 1 wherein the receiver in the client tracking unit receives the predetermined data over first and second predetermined frequencies transmitted by the transmitter.

7. The system recited in Claim 2 wherein the receiver in the monitoring unit receives the predetermined data over first and second predetermined frequencies transmitted by the transmitter.

8. The system recited in Claim 1 further comprising a field verification unit coupled to the wireless portable monitoring device that comprises one or more receivers that receive the data transmitted by the transmitter so as to remotely monitoring clients whose transmitters are within its range.

9. The system recited in Claim 1 wherein the transmitter comprises:
a strap;
a transmitter housing enclosing transmitter electronics and a battery; and
a snap-on base plate having a surface that comes in direct contact with skin of the client after installation, which base plate engages the strap and mates with the transmitter housing to lock the housing strap and base plate together.

10. The system recited in Claim 9 wherein the snap-on base plate is disposable.

11. The system recited in Claim 1 wherein the client tracking unit comprises software that monitors and reports transmitter proximity, monitors and reports strap status, and monitors and reports transmitter battery status.

12. The system recited in Claim 1 wherein the memory of the client tracking unit stores restricted zone points, contact names and telephone numbers, and changeable transmitter identification data.

13. The system recited in Claim 1 wherein the client tracking unit comprises a GSM (Global System for Mobile) capable cellular communication device that permits selective voice contact between the client and the monitoring center and the monitoring individual.

14. The system recited in Claim 1 wherein the client tracking unit comprises software that selectively displays SMS (Short Message Service) messages to the client corresponding to text messages, schedule reminders, zone awareness reminders, and contact reminders.

15. The system recited in Claim 1 wherein the client tracking unit comprises software that displays SMS (Short Message Service) messages transmitted from the monitoring individual and monitoring center.

16. The system recited in Claim 1 wherein the wireless portable monitoring device alerts the monitoring individual in response to messages derived from the client tracking and monitoring units using the wireless communication link.

17. The system recited in Claim 1 wherein the wireless portable monitoring device is operative to place calls to and receive calls from the monitoring center and to place calls to and receive calls from the client tracking unit.

18. The system recited in Claim 1 wherein the monitoring center comprises GPS and RF processors for processing the status data and GPS data derived from the client tracking unit and whose outputs are integrated by the web server and wirelessly delivered to the monitoring individual on the portable monitoring device.

19. The system recited in Claim 1 wherein the monitoring center comprises an integrated voice response processor, a radio frequency processor, and a multi-level GPS processor, and wherein outputs of the respective processors are integrated by the web server and wirelessly delivered to the wireless portable monitoring device to display
5 information regarding the client.

20. The system recited in Claim 1 wherein the wireless portable monitoring device comprises a victim's wireless portable monitoring device for use by a victim that communicates with the database by way of the web server to display the location of a particular client in real time.

21. The system recited in Claim 1 that further comprises a victim's wireless portable monitoring device for use by a victim that comprises a wireless voice and data communication device and web browser that communicates with the database by way of the web server to display the location of a particular client in real time.

22. The system recited in Claim 20 wherein the victim's wireless portable monitoring device allows the victim to have selective data and voice contact with operators at the monitoring center or monitoring individual.

23. A method of electronically monitoring a client, comprising the steps of:
transmitting signals containing data regarding a body-worn transmitter worn by a client;
receiving and storing the signals transmitted by the transmitter in a wireless voice
5 and data communication device carried by the client;
receiving and storing time-coded position information in the wireless voice and data communication device that indicates the geolocation thereof;
transmitting the data regarding the body-worn transmitter worn by the client and the time-coded position information regarding the client to a monitoring center;
10 storing the data regarding a body-worn transmitter and the time-coded position information in a central database; and
remotely accessing the central database to access and review the data and time-coded position information relating to the client to monitor the client.

24. The method recited in Claim 23 wherein the accessing step comprises the step of:

remotely and wirelessly accessing the central database to access and review the data and time-coded position information relating to the client to monitor the client.

25. The method recited in Claim 23 wherein the accessing step comprises the step of:

initiating a web browsing session on a portable wireless monitoring device that interfaces to the central database by way of a web server to access and review the data
5 and information relating to the client.

26. The method recited in Claim 23 wherein the transmitting step comprises the steps of:

docking the wireless voice and data communication device to a monitoring unit;
and
5 transmitting data and time-coded position information relating to the client to the monitoring center by way of land communication lines.

24. The method recited in Claim 23 wherein the transmitting step comprises the steps of:

docking the wireless voice and data communication device to a monitoring unit;
and
5 transmitting data and time-coded position information relating to the client to the monitoring center using SMS (Short Message Service) messages over a wireless communication link.

25. The method recited in Claim 23 wherein the transmitting step transmits signals at two different frequencies separated in time.

26. The method recited in Claim 23 wherein the accessing step comprises the step of:

transmitting voice commands to the monitoring center using a portable wireless monitoring device that interfaces to the central database by way of web server and
5 VXML interfaces to access and review the data and information relating to the client.

27. A method of electronically monitoring a client, comprising the steps of:
providing the client with a wireless voice and data communication device having
a GPS receiver and memory that stores time-coded position data corresponding to the
location of the device derived from GPS satellites, and that comprises a receiver that
5 receives signals from a body-worn transmitter comprising transmitter data that indicate
the substantial collocation of the wireless communication device and the transmitter;
transferring the time-coded position data and the transmitter data from the
wireless communication device to a central database that stores data regarding the client;
and
10 remotely accessing the central database to access and review the time-coded
position data and the transmitter data relating to the client to monitor the client.

28. The method recited in Claim 27 wherein the transferring data step comprises
the steps of:
transferring the time-coded position data and the transmitter data from the
wireless communication device to a monitoring unit; and
5 transferring the time-coded position data and the transmitter data from the
monitoring unit to the central database.

29. The method recited in Claim 27 wherein the accessing step comprises the
step of:
remotely and wirelessly accessing the central database to access and review the
time-coded position data and the transmitter data relating to the client to monitor the
5 client.

30. The method recited in Claim 28 wherein the step of transferring data to the
monitoring unit comprises transferring substantially the same data at two different
frequencies separated in time to the monitoring unit.

31. The method recited in Claim 27 wherein the accessing step comprises the
step of:
transmitting voice commands using a remote monitoring device that interfaces to
the central database by way of web server and VXML interfaces to access and review the
5 data and information relating to the client.

32. The method recited in Claim 97 wherein the accessing step comprises the step of:

transmitting voice commands using a wireless monitoring device that interfaces to the central database by way of web server and VXML interfaces to access and review
5 the data and information relating to the client.